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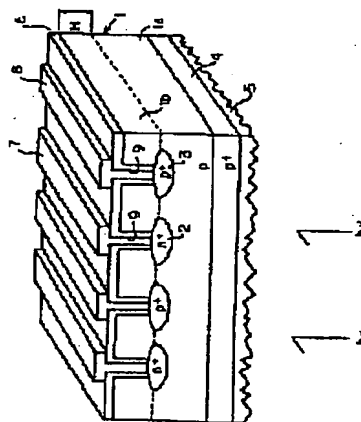
(54) **SOLAR CELL**

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(57) Abstract:

PURPOSE: To prevent the recombination of minority carriers in a base region and increase power generation efficiency by burying an emitter region inside a base region in a solar cell in which one-conductivity semiconductor emitter is formed in contact with another conductivity semiconductor base region.

CONSTITUTION: An N-type emitter region 2 and a P-type collector region 3 are diffused and formed on the surface of a base region 1 P-type substrate 1a. A P-type layer 1b is epitaxially grown thereon, and the emitter region 2 and the collector region 3 are buried at a position H deep from the surface of the base region 1. A contact hole 9 which communicated with both regions and an insulating film 6 are formed by masking. An insulating film on the bottom surface of the contact hole is removed by sputtering with a mask except an opening of the contact hole 9. Electrodes 7, 8 are formed and connected to regions 2, 3 respectively. As a result, the recombination of minority carriers in an interface of the base region 1 is suppressed, and thus power generation efficiency can be increased.



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